

## A B S T R A C T

In an apparatus for ionizing and separating a gas into gas components in an inlet gas (11), a gas flowing into a flow channel of a chamber from an inlet port is ionized, and in the flow channel the gas ionized by applying an electrical field to the gas components having an ionized state by electrodes (16) (17) is separated into a cation and anion to separate a gas molecule component contained in the gas. One of the gas component such as a clean air is removed from a first outlet (12) port and the separated gas component is removed from a second outlet (13) port. A flow of the inlet gas from the inlet port is adjusted to retain the gas in the flow channel of the chamber for a predetermined or more time so that an airflow is adjusted.